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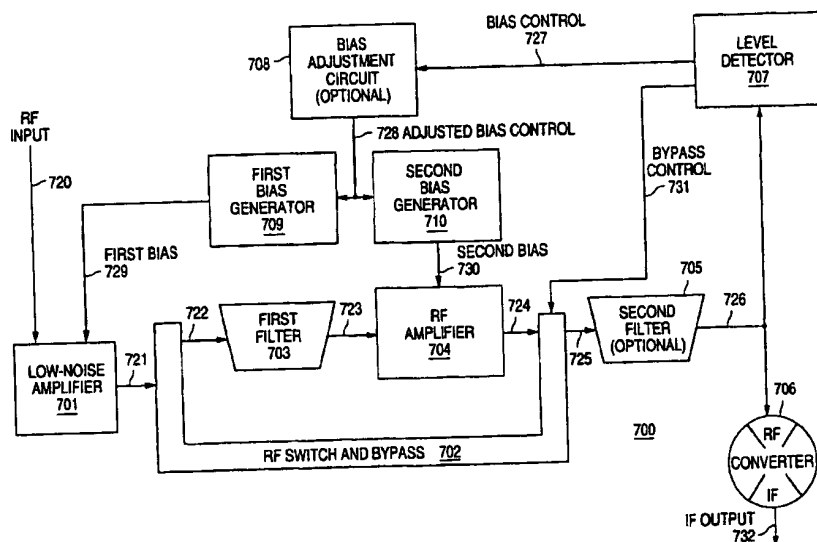
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(54) Title: **LOW-POWER CDMA RECEIVER**



(57) Abstract: A radio frequency receiver (700) includes a first amplifier (701) that amplifies a radio frequency signal (720) into a first stage signal (721), a detector (707) that produces a bypass signal (731) when the signal strength of the received signal is sufficiently strong, and a switch (702) that provides the first stage signal (721) when the bypass signal (731) is asserted and the first stage signal (721) filtered by a radio frequency filter (703) and amplified by a second amplifier (704) when the bypass signal (731) is not asserted. The detector (707) also produces a bias control signal (727) and bias generators (709, 710) set the bias level that increases as the signal level increases. The invention can be used to increase the range of linearity, and to reduce power consumption by reducing the amplification.

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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04B 1/10; H04L 27/08, 27/08, 27/14/, 27/32,1/00, 25/08

US CL : 375/ 349, 345, 316, 346

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 375/ 349, 345, 316, 346

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST

search Terms: Receiver, Level detector, Bypass, Switch, Amplifier

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- Y	US 5,930,692 A (PETERZELL et al) 27 July 1999, col. 5, line 6 - col. 8, line 12)	1-4, 7-10, 12-16 ----- 5, 11
X ----- Y	US 6,009,129 A (KENNEY et al) 28 December 1999, col. 5, line 58 - col. 8, line 9).	1-4, 6-10, 12-16 ----- 5, 11
A	US 3,673,499 A (AVINS et al) 27 June 1972, see entirety.	1 - 38
A	US 5,537,675 A (BOND) 16 July 1996, see entirety	1 - 38

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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"P" document published prior to the international filing date but later than the priority date claimed	

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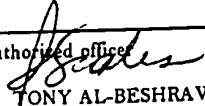
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,196,806 A (ICHIHARA) 23 March 1993, col. 4 line 48 - col. 5 line 16.	5, 11